REMARKS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1, 11, 13-19, and 21-23 are pending in this case. Claims 1, 11, 13-15, 18, 19, 21 and 22 are amended. No new matter is added. Claims 16 and 17 stand withdrawn from consideration as directed to one or more non-elected inventions.

The outstanding Office Action rejected Claims 1, 11, 13-15, and 18-22 under 35 U.S.C. § 102(b) as anticipated by Hikata (JP 07-094193) and, alternatively, under 35 U.S.C. § 103(a) as unpatentable over Hikata.

The outstanding Office Action maintains that Hikata teaches the same material composition as claimed and, thus, inherently anticipates the claimed active material. With regard to the claimed average grain diameter, Hikata does not describe the claimed values, but the outstanding Office Action relies on MPEP § 2112.01(II) to assert that a composition and its properties are inseparable.

MPEP § 2112.01(II) states that products of identical chemical composition cannot have mutually exclusive properties. In the case discussed by MPEP § 2112.01(II), the Federal Circuit noted that pressure-sensitive adhesion was an inherent property not shown by the Applicant as lacking in the reference. In re Spada, 911 F.2d 705 (Fed. Cir. 1990).

However, the claimed average grain diameter of a zinc sheet or zinc can active material is not an inherent property at all. One of ordinary skill in the relevant art understands average grain diameter to be controllable based on numerous conditions, with the claimed temperature being one of those conditions, rather than being based solely on the presence of certain materials.

Further, Applicants previously submitted photographs obtained by metallurgical microscope. Fig. A (Hikata) shows coarse particle diameter in the range of 500-1000 μm for

a container processed by a conventional can or sheet as in Hikata. On the other hand, Fig. B shows no such coarse particles for a container processed by a can or sheet of the claimed invention.

In the Response to Arguments section of the Office Action, the Office Action continues to assert:

> It is inherent that the grain size would be the same if the same process was used in Hikata as Applicant's in regards to the zinc sheet (see para. 0013). Further, from Figs. A and B that were submitted by Applicant it is seen that Fig. A's left edge is the same as Fig. B's edge. Therefore, the can and sheet of Hikata inherently has the same average grain diameter of said zinc sheet or zinc can.

Applicants respectfully disagree.

As clearly shown in previously submitted Fig. A, very large grains are present that are not present in the edge of the inventive device as shown in Fig. B. It is respectfully submitted that the presence of these very large grains with the other smaller grains cannot be ignored for purposes of comparing the different average grain sizes. Furthermore, it is respectfully submitted that it is manifest that the average grain size in Fig. A is significantly larger than the average grain size in Fig. B.

In addition, Claims 1 and 18 further recite "the active material being a piece of $10cm^2$ (width times length) which decreases 3.9 mg of its weight or less due to corrosion...." This is in contrast with the rate of corrosion weight reduction described in Hikata. For example, in Example 74 of Hikata referred to in the Office Action, 3.05 mg/cm^2 of weight reduction due to corrosion occurs. This is in the range of 10 times as much corrosion as is recited in Claims 1 and 18. The amount of corrosion based weight reduction described in Hikata with regard to all the examples ranges from a low of 2.65 mg/cm^2 to a high of 4.90 mg/cm^2. The claimed decrease in weight due to corrosion is 3.9 mg per 10 cm^2. Thus, the claimed invention

achieves a reduction in weight loss due to corrosion on the order of about 10% of that achieved in Hikata.

Finally, the description in Hikata is directed only to a manufacturing method of an alloy sheet or pellet. There is no description of the manufacture of a battery or, in particular, an anode varying. In particular, paragraph [0013] of Hikata describes [t]he strip-processing nature sample alloy... was rolled with the heating roller pressed with a temperature of 180 to 220°C...." Hikata further states [t]he number of the pellet obtained by piercing a sample alloy plate after rolling ... was counted...." That is, Hikata does not describe the rolling of the anode therein, but the rolling of the sheet from which pellets were pierced. Finally, Hikata states in paragraph [0014] "[t]he number of the sample alloy with bad strip-processing nature of the normal pellet obtained by a crack and a crack occurring the surface and near both ends and an alloy plate at the time of rolling, and a crack and a chip arising on the pierced pellet decreases." Therefore, the description in paragraph [0013] cited in the Office Action is directed to rolling of the sheet from which the pellets were obtained, not the rolling of anode.

Because Hikata does not anticipate or establish a *prima facie* case of obviousness against Claim 1, as discussed above, Applicants respectfully request that the rejections under 35 U.S.C. §§ 102(b) and 103(a) of Claim 1 and Claims 11, 13-15, and 23 which depend therefrom, be withdrawn.

Claim 18, though differing in scope from Claim 1, patentably defines over Hikata at least for reasons that are similar to those discussed above with regard to Claim 1.

Thus, Applicants respectfully request that the rejections under 35 U.S.C. §§ 102(b) and 103(a) of Claim 18 and Claims 19, 21, and 22, which depend therefrom, be withdrawn.

Accordingly, the outstanding rejections are traversed and the pending claims are believed to be in condition for formal allowance. An early and favorable action to that effect is, therefore, respectfully requested.

Respectfully submitted,

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